

**DOCKET NO. D-1969-150 CP-2**

**DELAWARE RIVER BASIN COMMISSION**

**Discharge to Special Protection Waters**

**Lambertville Municipal Utilities Authority  
Wastewater Treatment Plant  
City Of Lambertville, Hunterdon County, New Jersey**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by the Lambertville Municipal Utilities Authority (LMUA) on May 13, 2011 (Application), for the review of work performed at an existing wastewater treatment plant (WWTP). New Jersey Pollutant Discharge Elimination System (NJPDES) Permit No. NJ0020915 for the existing WWTP was issued by the New Jersey Department of Environmental Protection (NJDEP) on June 30, 2004, effective September 1, 2004. The NJDEP issued Treatment Works Approval Permit No. 09-0098 for a portion of this project on May 13, 2009. The NJDEP has delayed the renewal of the NJPDES Permit pending Commission approval.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Hunterdon County Planning Board has been notified of pending action. A public hearing on this project was held by the DRBC on July 11, 2012.

**A. DESCRIPTION**

**1. Purpose.** The purpose of this docket is to approve the work on the existing 1.5 million gallons per day (mgd) LMUA WWTP that was performed in the years 2010 and 2011. The work included the replacement of existing primary and secondary clarifier sludge piping, eight (8) existing rotating biological contactors with associated air piping and blowers, existing sludge piping and pumps, existing electrical equipment, and existing instrumentation system. The work also included construction of a new magnesium hydroxide chemical storage and feed facility for

improved odor control, installation of a new water coupled heat pump to provide heating/cooling for the administration building, and the installation of a plant water filter system for use at the WWTP under LMUA's reclaimed Water for Beneficial Reuse Permit. The project does not include any change to the existing design capacity of the LMUA WWTP.

**2. Location.** The LMUA WWTP will continue to discharge to the non-tidal Delaware River at River Mile 148.4 (Delaware River). The WWTP is located in the Lower Delaware Special Protection Waters (SPW) area, in the City of Lambertville, Hunterdon County, New Jersey as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
DSN001A	40° 21' 30"	74° 56' 45"

**3. Area Served.** The WWTP will continue to service the City of Lambertville and the Borough of Stockton, which are both located in Hunterdon County, New Jersey, as well as the Borough of New Hope and portions of Solebury Township, which are both located in Bucks County, Pennsylvania. For the purpose of defining the Area Served, sections B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in the DECISION section of this docket.

**4. Physical Features.**

**a. Design Criteria.** The docket holder project includes the following changes to the existing 1.5 mgd LMUA WWTP:

The following elements were replaced:

- i. Existing primary and secondary clarifier sludge piping
- ii. Eight (8) existing rotating biological contactors with associated air piping and blowers
- iii. Existing sludge piping and pumps
- iv. Existing electrical equipment
- v. Existing instrumentation systems

The following elements were added:

- i. Construction of a new magnesium hydroxide chemical storage and feed facility for improved odor control
- ii. Installation of a new water coupled heat pump to provide heating/cooling for the administration building
- iii. Installation of a filtering system on the plant's effluent water system

**b. Facilities.** The existing WWTP consists of a bar screen, an aerated grit chamber, two (2) primary settling tanks, two (2) rotating biological disc tanks consisting of a total of eight (8) units, two (2) secondary settling tanks, two (2) chlorine contact tanks with dechlorination.

Sludge is placed in a sludge holding tank prior to dewatering via a belt filter press. Magnesium hydroxide is fed at the head of the facility following the grit chamber and in the sludge holding tank to improve odor control.

Wasted sludge continues to be transported off-site by LMUA staff or a licensed hauler for disposal at a State-approved facility.

The docket holder's wastewater treatment facility discharges to waters classified as SPW and therefore pursuant to the Commission's SPW regulations is required to have available emergency power. The existing WWTP has a generator installed capable of providing emergency power. (SPW)

The docket holder's wastewater treatment facility is not staffed 24 hours per day, and therefore pursuant to the Commission's SPW regulations is required to have a remote alarm system that continuously monitors plant operations. The docket holder's facility has a remote alarm system installed that will notify an on call person in the event of an emergency. (SPW)

The docket holder's wastewater treatment facility has also prepared and implemented an emergency management plan (EMP) in accordance with Commission requirements. (SPW)

The project facilities are located in the flood fringe portion of the floodplain and have been flood-proofed to at least one (1) foot above the 100 year flood elevation as required by the Commission's *Flood Plain Regulations (FPR)*.

c. **Water withdrawals.** The potable water supply in the project service area is supplied by United Water Lambertville (UWL), the Bucks County Water & Sewer Authority (BCWSA), or by individual on-lot wells. The water withdrawal by UWL is part of the New Jersey Water Supply Authority's Delaware and Raritan Canal withdrawal. The water withdrawal by the BCWSA is described in detail in Docket No. D-2004-39 CP-1, which was approved on September 26, 2005.

d. **NJPDES Permit / DRBC Docket.** NJPDES Permit No. NJ0020915 was approved by the NJDEP on June 30, 2004 (effective September 1, 2004) and includes final effluent limitations for the project discharge of 1.5 mgd to surface waters classified by the NJDEP as Zone 1E Waters. NJDEP has informed Commission staff that they intend to renew NJPDES Permit No. NJ0020915 shortly after Commission approval has been given. The following average monthly effluent limits are among those listed in the existing NJPDES Permit that are expected to be renewed and meet or are more stringent than the effluent requirements of the DRBC.

**EFFLUENT TABLE A-1: DRBC Parameters Included in NJPDES Permit**

<b>OUTFALL DSN001A (WWTP)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
pH (Standard Units)	6 to 9 at all times	As required by NJPDES Permit
Total Suspended Solids	30 mg/l	As required by NJPDES Permit
BOD (5-Day at 20° C)	30 mg/l (85% minimum removal*)	As required by NJPDES Permit
Ammonia Nitrogen	20 mg/l	As required by NJPDES Permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NJPDES Permit

\* DRBC Requirement

**EFFLUENT TABLE A-2: DRBC Parameters Not Included in NJPDES Permit**

<b>OUTFALL DSN001A (WWTP)</b>		
<b>PARAMETER</b>	<b>LIMIT</b>	<b>MONITORING</b>
Total Dissolved Solids*	1,000 mg/l *	Quarterly **
Dissolved Oxygen	Monitor & Report *	Monthly *
Phosphorus	Monitor & Report *	Monthly *
Nitrate – N	Monitor & Report *	Monthly *
Total Nitrogen	Monitor & Report *	Monthly *

\* DRBC Requirement

\*\* See DECISION Condition II.r.

e. **Cost.** The overall cost of this project was \$7,191,200.

f. **Relationship to the Comprehensive Plan.** The 1.5 mgd LMUA WWTP was included in the Comprehensive Plan as part of the approval of Docket No. D-69-150 CP on December 16, 1980. Approval of this docket incorporates the 1.5 mgd LMUA WWTP as currently configured into the Comprehensive Plan.

## **B. FINDINGS**

The purpose of this docket is to approve work on the existing 1.5 mgd LMUA WWTP that was performed in 2010 and 2011. The work included the replacement of existing primary and secondary clarifier sludge piping, eight (8) existing rotating biological contactors with associated air piping and blowers, existing sludge piping and pumps, existing electrical equipment, and existing instrumentation system. The work also included construction of a new magnesium hydroxide chemical storage and feed facility for improved odor control, installation of a new water coupled heat pump to provide heating/cooling for the administration building, and installation of new plant water filtering system for use at the WWTP under LMUA's reclaimed water for beneficial reuse permit.

On July 16, 2008, the DRBC approved amendments to *Water Quality Regulations (WQR)*. As part of these amendments, the portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area were approved for

SPW designation as Significant Resource Waters. The LMUA WWTP is a facility that discharges to the Lower Delaware River SPW. Therefore the LMUA WWTP is required to comply with the applicable SPW regulations.

Section 3.10.3A.2. of the Commission's WQR provides increased protection for waters that the Commission classifies as SPW. Section 3.10.3A.2.d. enumerates the SPW requirements for wastewater treatment facilities discharging to SPW.

Section 3.10.3A.2.d.8) of the Commission's WQR provides the requirements for wastewater treatment plants that were discharging to SPW at the time of classification. An existing wastewater treatment facility will not be subject to the most protective treatment requirements of the SPW regulations, including the "no measurable change", "Best Demonstrable Technology" requirements and or the consideration of natural treatment technologies requirements, as long as the facility makes no "Substantial Alterations or Additions" as defined in Section 3.10.3A.2.a.16) of the Commission's WQR. If it makes no substantial alterations or additions, the facility is required to continue to comply only with the requirements for standby power facilities, remote alarms, emergency management plans and nonpoint source pollution control plans.

Section 3.10.3A.2.a.16) of the Commission's WQR provides:

"Substantial Alterations or Additions" are those additions and alterations resulting in: (a) a complete upgrade or modernization of an existing wastewater treatment plant, including substantial replacement or rehabilitation of the existing wastewater treatment process or major physical structures such as headworks, settling tanks, and biological/chemical treatment [or] and filtration tanks, whether conducted as a single phase or a multi-phased project or related projects; or (b) a new load or increased flow or loading from an existing facility that was not included in a NPDES permit or docket effective on the date of SPW designation. Among other projects, modifications made solely to address wet weather flows; and alterations that are limited to changes in the method of disinfection and/or the addition of treatment works for nutrient removal are not deemed to be "Substantial Alterations or Additions."

The Commission's view is that the work performed on the LMUA WWTP comprises "Substantial Alterations or Additions" as that term is defined in the regulation quoted above. The LMUA disputes that contention.

On May 4, 2010, consistent with the DRBC position recited above, the Executive Director directed the LMUA to submit a complete application accompanied by the appropriate review fee for the proposed modification to the WWTP. In addition, the Executive Director directed the LMUA to appear before the Commission to show cause why the LMUA should not be found in violation of the Compact and the DRBC regulations and why LMUA should not be

subject to penalties in accordance with Section 14.17 of the Compact and Article 7 of the *Rules of Practice and Procedure (RPP)*. On July 8, 2010, LMUA sent its response to the Executive Director's letter. In its submission, LMUA disputed the Commission staff position that the project was reviewable and that the upgrades and modifications were "Substantial Additions and Alterations" as intended in the *WQR*. Based on the recommendations of the Commission Counsel, at the July 14, 2010, the Commissioners' agreed to allow the Commission staff to enter into settlement discussions to resolve the matter.

The settlement negotiations resulted in an Agreement in Principle (AIP) dated April 28, 2011 between LMUA and Commission staff which among other things provided for negotiation of a formal settlement agreement subject to the approval of the Commissioners. A formal Settlement Agreement consistent with the AIP is being presented to the Commissioners for their consideration concurrent with this docket.

In accordance with the AIP, and without prejudice to the positions of either party in future matters, LMUA submitted the Application and the Commission staff undertook review on the basis that the work at the LMUA WWTP constitutes:

1. A reviewable project as provided for in the Commission's *RPP* and the *WQR*; and
2. "Substantial Alterations or Additions" as defined in Section 3.10.3A.2.a.16) of the Commission's *WQR*.

Furthermore, as provided in the accompanying Settlement Agreement between LMUA and the Commission, and without prejudice to the positions of either party in future matters, in accordance with Article 9, Section 2.9.3 of the *RPP* the Commission will not:

1. Pursue penalties against LMUA as set forth in the Commission's letter dated May 4, 2010, or
2. Apply the more stringent of the either of "no measurable change" or BDT to the incremental load (difference between the actual load at the time of SPW designation and the design load) from the LMUA WWTP.

Section 3.10.3A.2.e.1). and 2). of the Commission's *WQR* requires projects subject to review under Section 3.8 of the Compact located in the drainage area of Special Protection Waters to submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the applicant's service area which is also located within the drainage area of SPW. The service area of the docket holder is located within the drainage area to the SPW. Since this project does not entail expansion of facilities/service area (i.e., there aren't any new or increased non-point source loads associated with this approval), the non-point source pollution control plan requirement is not applicable at this time. DECISION Condition II.n., provides that prior to allowing connections from any new service areas or any new developments, the docket holder shall, consistent with the provisions of Section 3.10.3.A.2.e. as applicable, either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with that section, or receive written confirmation from the Executive

Director of the DRBC that the new service area or development is in compliance with a DRBC-approved NPSPCP.

At the project site, the Delaware River has an estimated seven-day low flow with a recurrence interval of ten years of 1,315 mgd (2,030 cubic feet per second). The ratio of this low flow to the design capacity of the LMUA WWTP is 877 to 1.

The nearest surface water intake of record for public water supply downstream of the project discharge is on the Delaware River by the Pennsylvania American Water Company at its Yardley facility, approximately 11 river miles away.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The limits in the current NJPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the *WQR* of the DRBC.

### **C. DECISION**

I. Effective on the approval date for Docket No. D-1969-150 CP-2 below:

a. Docket No. D-69-150 CP is terminated and replaced by Docket No. D-1969-150 CP-2; and

b. The project and the appurtenant facilities described in the Section A “Physical Features” of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in the Section A “Physical Features” of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the NJDEP in its NJPDES Permit, and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s.

b. The facility and operational records shall be available at all times for inspection by the DRBC.

c. The facility shall be operated at all times to comply with the requirements of the *WQR* of the DRBC.

d. The docket holder shall comply with the requirements contained in the Effluent Tables in Section A.4.d. of this docket. The docket holder shall submit the required monitoring results directly to the DRBC Project Review Section. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations.

e. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *RPP*.

f. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

g. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

h. The discharge of wastewater shall not increase the ambient temperatures of the receiving waters by more than 5°F, nor shall such discharge result in stream temperatures exceeding 87°F. (Non-tidal, Non-trout Waters)

i. The docket holder is permitted to treat and discharge wastewaters as set forth in the Area Served section of this docket, which incorporates by reference sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION section.

j. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

k. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

l. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this discharge or project.

m. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

n. Prior to allowing connections from any new service areas or any new developments, the docket holder shall, consistent with the provisions of Section 3.10.3.A.2.e. as applicable, either submit and have approved by the Executive Director of the DRBC a Non-Point Source Pollution Control Plan (NPSPCP) in accordance with that section, or receive written confirmation from the Executive Director of the DRBC that the new service area or development is in compliance with a DRBC approved NPSPCP.

o. A complete application for the renewal of this docket, or a notice of intent to cease the operations (withdrawal, discharge, etc.) approved by this docket by the expiration date, must be submitted to the DRBC at least 6 months prior to the expiration date below (unless permission has been granted by the DRBC for submission at a later date), using the appropriate DRBC application form. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of this docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket renewal approval.

p. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin. Nothing in this provision shall be construed to waive or limit LMUA's procedural or substantive rights or remedies as set forth in the RPP.

q. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

r. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

s. Within thirty (30) days of the issuance of this docket (by August 11, 2012), the docket holder shall submit the project review fee of \$28,764.80 to the Commission in accordance with Paragraph 2(a) of the accompanying Settlement Agreement.

**BY THE COMMISSION**

**DATE APPROVED: July 11, 2012**

**EXPIRATION DATE: March 7, 2017**